

## ABSTRACT

## CARRIER CONSTELLATION INFORMATION IN MULTI-CARRIER SYSTEMS

In a multi-carrier system, the carriers ( $f_0 \dots f_{511}, f_{512} \dots f_{1023}, \dots, f_{3584} \dots f_{4095}$ ) are grouped in subsets (SUBSET1; SUBSET2; ...; SUBSET8). A constellation information transmitting arrangement (BiGi\_TA), for instance located in the multi-carrier receiver (RX), produces for each carrier subset (SUBSET1; SUBSET2; ...; SUBSET8) a limited set of parameter values (B1, G1; B2, G2; ...; B8, G8) and transmits these sets of parameter values (B1, G1; B2, G2; ...; B8, G8) to a constellation information receiving arrangement (BiGi\_RA), for instance located in the multi-carrier transmitter (TX). Through interpolation of the limited set of parameter values (B1, G1; B2, G2; ...; B8, G8) the latter constellation information receiving arrangement (BiGi\_RA) determines the constellation where each carrier ( $f_0 \dots f_{511}, f_{512} \dots f_{1023}, \dots, f_{3584} \dots f_{4095}$ ) of a carrier subset (SUBSET1; SUBSET2; ...; SUBSET8) will be modulated with.